

23/72 PLUSPAT - (C) QUESTEL-ORBIT

- ✓PN - EP0950954 A1 19991020 [EP-950954]  
TI - (A1) Method and apparatus for transparent server **failover** for highly available objects  
OTI - (A1) Méthode et dispositif pour le transfert transparent à la défaillance d'un serveur pour des objets à haute disponibilité  
- (A1) Verfahren und Vorrichtung zur transparenten Serversicherheitsübertragung für hochverfügbare Objekte  
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AP - EP99200941 19990325 [1999EP-0200941]  
PR - US5840698 19980409 [1998US-0058406]  
IC - (A1) **G06F-011/14**  
EC - G06F-011/14A8C  
DS - AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE  
DT - Basic  
CT - Cited in the search report  
- US5668943(A) (Cat. X)  
STG - (A1) Public. Of applic. With search report  
AB - One embodiment of the present invention provides a method and an apparatus that facilitates transparent **failovers** from a primary **copy** (206) of an object on a first server (212) to a secondary **copy** (216) of the object on a second server (213) when the first server **fails**, or otherwise becomes unresponsive. The method includes detecting the **failure** of the first server; selecting the second server; and reconfiguring the second server to act as a new primary server for the object. Additionally, the method includes transparently retrying uncompleted invocations to the object to the second server, without requiring explicit retry **commands** from a client application program. A variation on this embodiment further includes winding up active invocations to the object before reconfiguring the second server to act as the new primary server. This winding up process may include causing invocations to unresponsive **nodes** to unblock and complete. Another variation includes blocking new invocations to the object after detecting the **failure** of the first server, and unblocking these new invocations after reconfiguring the second server to act as the new primary server. Hence, the present invention can greatly simplify programming of client application programs for highly available systems. It also makes it possible to use a client application program written for a non-highly available system in a highly available system.